

Electromagnetic Field 2012

**Friday 31st August to
Monday 3rd September 2012**

Pineham Park, Milton Keynes, UK

www.emfcamp.org



@emfcamp



facebook.com/emfcamp

#emfcamp on irc.freenode.net



Welcome

Welcome to the very first Electromagnetic Field! We hope this will be the beginning in a long line of UK hacker camps, and we're very happy to have you here.

This booklet contains information that you will find useful during your stay on the field, although things are likely to change during the event, so please take advantage of the ubiquitous internet access and check the website from time to time!

Emergencies

If you have problems, contact the info desk either by visiting the tent, or by calling **+44 (0) 7449 676 467**. We have a fully trained first aid and fire response team on-site available 24 hours a day. If your problem is not an emergency but you require assistance, get in touch anyway: we can help with most situations.

The emergency number in the UK is **999** or **112**, but if you are on site please inform our info desk first. They will call the emergency services if necessary. If you do call the emergency services, please be sure to inform EMF staff so we can prepare for their arrival.

Food & Drink

We have two vans on site: one serves food cooked by EMF staff, the other is a local coffee van to keep you caffeinated for as long as possible.

We also provide several oil drum barbecues that are available near the food vans. Some of the barbecues are marked for vegetarians: please respect this. Food for cooking on these barbecues is available for sale at Baked Bytes, or you can

bring your own. Charcoal is available from the info tent. There is a bar with a selection of beers, wines, soft drinks, and of course Club Mate. You can find this located under the motorway bridge.

Local Area and Shopping

If you want to venture outside the camp, you have several options for getting into Milton Keynes town centre, where you will find a large variety of shops.

Driving

If you are parked nearby, it will be easy to find somewhere to park in the town centre. See http://wiki.emfcamp.org/wiki/Getting_Here for more details.

Buses

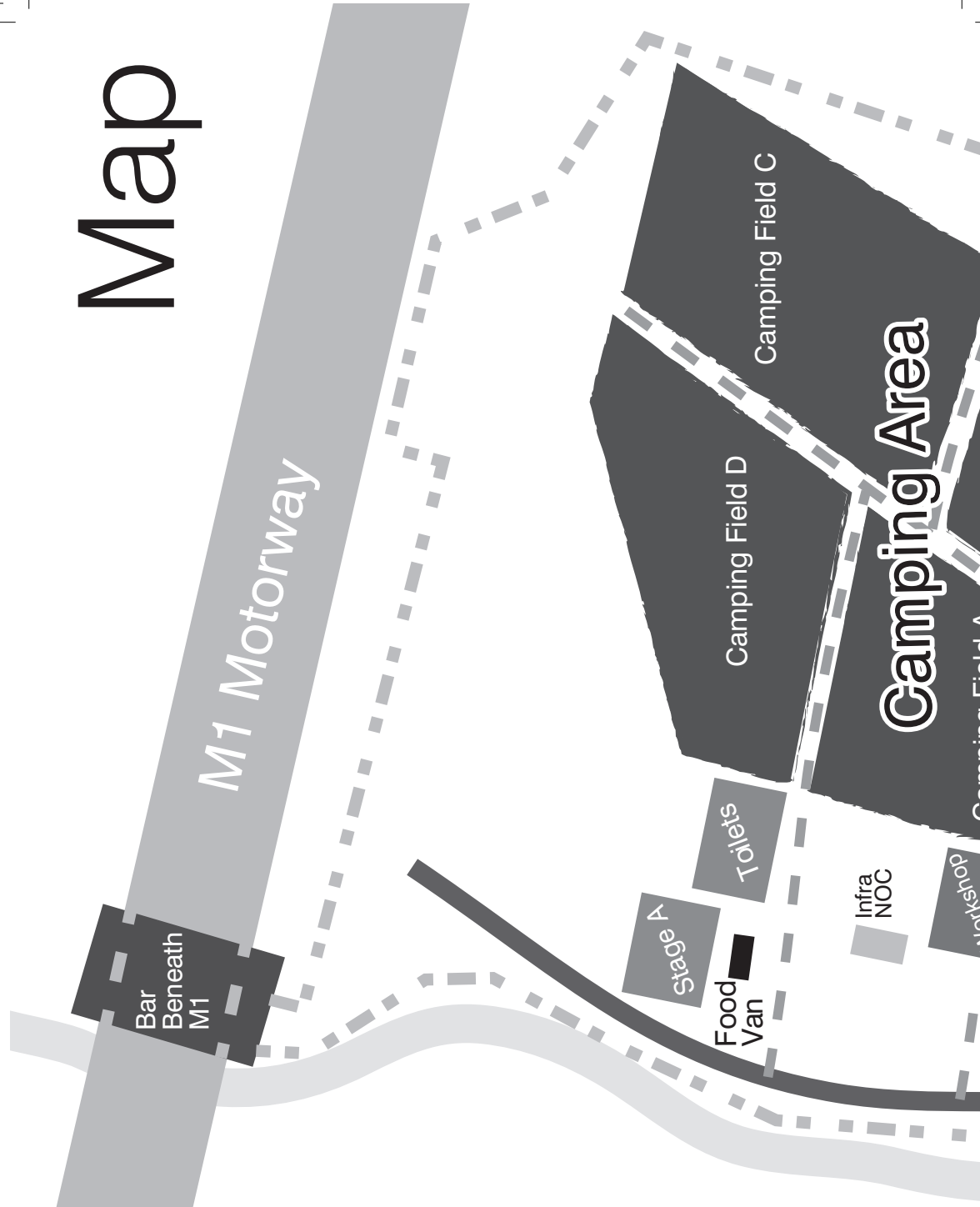
There are 3 main bus routes for getting in and out of Milton Keynes: 24 & 25 (same route in opposite directions), the 300 and the X5. The 300 & X5 run all weekend and take about 15 minutes to get you to the train station. Both run from about 5:30 till late. (see <http://www.mkweb.co.uk/miltonkeynesbuses/> for timetables)

Walking

It takes about 45 minutes to walk into the town centre, but given the landscaped nature of Milton Keynes it is a pleasant walk.

It is likely that someone will be making a trip to the town centre at least once a day. If you would like to order anything to be picked up or hitch a lift, please visit the info tent.

Map





@emfcamp

Emergency Numbers

Onsite Team +44 (0) 7449 676 467

The emergency number in the UK is **999** or **112**



Volunteering

As we're sure you know, EMF is an entirely volunteer-run event. It's not only organised by volunteers, it's staffed by volunteers too. The nice person who gave you this guide? They're a volunteer. The person pulling pints and chatting behind the bar? Yup, they're a volunteer too. The guys making sure you have internet; the speakers showing you slides; the guy waving your car into the last space in the car park? All volunteers.

If you want to help make EMF even more awesome and have a spare few hours there are two simple ways to volunteer:

- In person: Wander up to the info desk and make yourself known!
- Online: Head to <http://emfcamp.org> and click on "Volunteer Shifts".

We have three main tasks that we need volunteers for:

Stewarding

Stewards man the gates and check tickets, keep an eye on the camp site, and direct parking. Stewards will be rotated between posts during a 3 hour shift so they don't get bored or sore legs. Overnight we'll also need a few stewards but with the gates closed their main job will be keeping an eye on things and playing minecraft.

Bar staff

We have beer, wine, and soft drinks; we have a lot of people willing to drink. All we're missing are people to provide one with the other.

Stage handing

We have 2 stages and a workshop tent, they all have a range of equipment that needs to be working in order for it to be useful. Stage helpers will be making sure that speakers can be seen and heard as well as helping keep things on time.

Talks

The talks schedule is detailed on the website and will change during the event. Any changes will be communicated via email, but if you have arrived without an Internet-connected device, the info tent can supply you with a copy of the latest schedule on request.

The schedule is available online at <https://www.emfcamp.org/talks>

If you would like to give a talk or workshop, please contact the info tent and they will find you an available speaking slot. If your talk is under ten minutes, you can take advantage of a lightning talk session and just turn up, but please arrive early.

TiLDA

If you bought a weekend camping ticket then you will have received our camp badge, TiLDA, on arrival. For day ticketholders, or if you want to buy another one, we're selling them at the info desk. The battery in your TiLDA should last for the duration of the camp, however if you need to charge it, simply plug it in using a Micro USB cable.

During the day, how you interact with other campgoers will affect which team you end up on at sundown. Keep an eye on what colour your badge is during the day! More info on how the badge game works will be released during the first day of the camp. Good Luck!

At its heart TiLDA is the same hardware as an Arduino Leonardo, meaning you now own an Arduino! We will be running workshops on reprogramming your TiLDA every day, so if you want to learn more, check the schedule for timings.

For more information, visit <https://emfcamp.org/badge>.



EMFM

EMFM is our on-site self-facilitating media node, responsible for streaming and recording of everything that happens at EMF, whilst also providing 24/7 internet radio and interviews with people from around the camp. If you've got something to say or a lovely singing voice, you can find them lurking in a square white tent next to the main stages, or wandering around the site waving microphones at people.

All of the talks and other broadcasted content will be published online for your viewing and listening pleasure, so make sure you check the website for updates over the weekend!

Villages

Among the tents housing sleeping hackers you will find communal villages based around activities common to all the nearby occupants. Take a wander and you might be invited to take part in anything from soldering practise to impromptu music lessons.

We know that the following villages exist somewhere in the sea of tents, go and seek them out, or start your own!

EMFM
Milliways
UK Hackspaces Village
MzTek
Minecraft
Raspberry Pi
Portcullis Computer Security
Hackeriet
Locksport International

Rules

EMF reserves the right to refuse admission or eject a ticket holder for unreasonable or dangerous behaviour.

0. Do not be on fire.

1. Be excellent to each other.

Whatever you are doing, try to think how it could affect others around you. We especially will not tolerate harassment - please remember that what's acceptable amongst friends may be offensive to others.

2. Respect other people's property, physical and virtual.

Just because we use the word 'hack' doesn't mean everything is here to be attacked and/or exploited. This includes people's data and computers as well as their physical hardware.

3. Don't hack the infrastructure.

This includes network, power, the tents and other systems. If you want to run a project that does something unusual, please talk to the organisers and we will try to accommodate you.

4. Respect the site - don't damage it.

Pineham is a public park, and it must be returned as we receive it. You must not burn fires on the ground - large barbecues are provided for this purpose.

5. If an activity has a designated area please keep it there.

Tents should remain out of fire lanes. Activities likely to produce fumes or noise should remain clear of the tents.

6. No animals (except guide animals).

There will be mess, fire, loud noises and tents. The introduction of animals to this will only result in additional material for the biohackers.



7. Avoid bringing glass.
Broken glass is difficult to clear up from a field.
8. No smoking in public enclosed areas.
9. English law applies at EMF the same as anywhere else.
Don't bring weapons, illegal drugs, or devices for global thermonuclear war.
10. No amplified noise is allowed after midnight.
This is a condition of our license. Please be aware that while you're awake not everyone else will be; if you want to make noise please do so away from sleeping areas.

Power

Power is available throughout the campsite area. Standard UK 13A sockets are available from Datenklos (see the Network section) and can be connected to using the same procedure. In addition, IEC309 (Ceeform) 16A sockets are available in some camping areas, and in the campervan area.

As with networking, please leave the end of your extension lead next to your nearest datenklo, and we'll periodically come around and plug them in. Power is a limited resource, so please leave the 3-bar electric fires at home. If you have an project which needs significant power, get in touch and we'll try and sort it out.

Electricity is dangerous, and we won't plug in cables which appear to be unsafe. Make sure that the end of your extension lead is safely in the dry.

Network

We've brought 500Mbps of the Internet to this field for you. This is via two radio links to our NOC (Network Operations Centre) based in the tent next to the mast, and distributed throughout the site both using both wired and wireless networks. Naturally, the network is fully IPv6 enabled, and even supports multicast. If you have any trouble connecting, just drop by the NOC and we'll help you out.

How to Connect

WIRELESS

- Simply connect to one of our SSIDs (emfcamp, emfcamp-5ghz, emfcamp-2.4ghz).
- If you require a static IP address, please visit the NOC for an allocation and then connect to "emfcamp-staticip".
- If you're a member of a participating hackerspace, you can also join the "spacenet" SSID with your home hackerspace credentials.
- Be aware that the wireless networks are unencrypted. Remember to use VPN/SSH/HTTPS for anything sensitive.

WIRED

- To connect up your tent, run a network cable to the nearest datenklo (the thing that looks like a portaloo but we ask you to kindly not use it as such!).
- Leave about 3 metres of slack cable coiled outside. A member of the NOC team will pass by at regular intervals and connect it up for you.
- Make sure your cable doesn't cross any roads, and uses the cable ramps to cross pathways. Please use good judgement to minimise trip hazards.
- All of our edge ports are 10/100 auto-speed auto-duplex auto-MDX. Camping site switches also support PoE (802.3af), though we ask you to use this sparingly.



Network Rules

Be nice and friendly! Do not do to others what you would not wish done to yourself.

No switches without prior arrangement! We need to ensure a loop-free network, so if you really need one, please stop by the NOC first and we'll agree how to do this with you.

Interference in the 2.4GHz band hurts everyone's experience. Please don't run your own access point or we will find you and shut you down! If you need to run any other RF devices in the 2.4GHz spectrum, please stop by the NOC to discuss your frequencies.

Don't hurt the network. Particularly, do not attempt to run a DHCP or RA server. You will be found and publicly shamed!

If you are connecting a microcontroller such as a Nanode or Arduino Ethernet to the network, please make sure it is using a unique MAC address. Many of the code examples for such devices use an identical MAC address and this will cause problems - if you aren't sure contact the NOC.

Other points

The IP address you receive is a public one. There are no firewalls or NAT devices protecting you from the internet at large. Make sure your computer's firewall is switched on (Windows users, turn on Windows Firewall and mark "This is a public location").

If you have brought a server with you, we'll be happy to host it in the NOC, where it will have better access to power/UPS and a core network connection.

This field is multicast-enabled and connected to the BBC's

multicast network. To give it a try, open VLC, open the playlist if it isn't already open (View>Playlist), then under "Local Network", choose "Network Streams (SAP)".

There's a general-purpose server in the NOC - drop by if you'd like a shell account.

Curious about how the network is performing? Check out <http://stats.emfcamp.org/>

Handy Info

DNS Servers

94.45.224.224

94.45.225.225

2001:67c:20a1:a::a

2001:67c:20a1:b::b

NTP Server

94.45.224.9

2001:67c:20a1:1::9

IRC

irc.freenode.net

#emfcamp

Network Status

<http://stats.emfcamp.org/>

Queries?

Drop by the NOC or

e-mail noc@emfcamp.org

Check out the Internet team's wiki page for more last-minute information: <http://wiki.emfcamp.org/wiki/Internet>



Rubbish

The info tent can supply bin bags for free; please use them and leave full ones in the marked rubbish disposal area. When leaving the site, leave no trace that you were ever here. Anything you leave on site, volunteers will have to clear up and dispose of.

The Credits

There are a large number of people to thank for making the very first Electromagnetic Field happen. By the time the camp finishes, we're sure that many of you will have helped out too.

We can't thank everyone (because we'll certainly forget someone), but in alphabetical order, we would like to extend our gratitude to: Alex McLean, Alexandra Albert, Alison Wheeler, Amran Anjum, Andy Thomas, Ben Blundell, Benny Scroggs, Charles Yarnold, Chris Paton, Chris Roberts, Clare Greenhalgh, David Croft, Stavros Georgakopoulos, Jake Howe, James Harrison, Jasper Wallace, Jonty Wareing, Kate Oliver, Kitty Wong, Mark Steward, Martin Clarke, Martin Dittus, Nat Morris, Nick Large, Paul Dart, Russ Garrett, Sam Cook, and Will Hargrave.

The following organisations have also helped us:

- The Parks Trust, Milton Keynes
- The Pembury Tavern, Hackney, London
- The Chaos Computer Club

What next?

Once you've put up your tent and settled in you might want to:

- Look round the villages in the camping areas
- Grab a drink from our bar or grab some food
- Go and watch a talk in one of our two lecture tracks
- Get down to the workshop tent and start hacking!
- Talk with the other attendees:

<https://www.emfcamp.org/participating>

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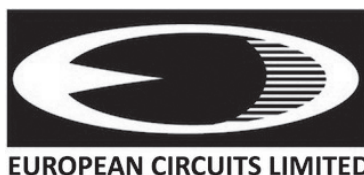
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Whats Inside

Cover / Info	1
Welcome	2
Emergencies	2
Food & Drink	2
Local Area and Shopping	3
Map	4-5
Volunteering	6
Talks	7
TiLDA	7
EMFM	8
Villages	8
Rules	9
Power	10
Network	11-13
Rubbish	14
The Credits	14
What Next?	14
Sponsors	15

We look forward
to seeing you at

EMF2014